	nota		BORING 492 - 1
774'	nell lies	Me 20	18" bucket auger for 30' & 3" rotary mud drilling below - sampling w/140# dropped 30 " on 1.4 " sampler
	chass	per 5 **	Sail description and drilling remarks
	CL	To soil	CLAY black marty silty very expansive, loose, very moist
		10, 200	Residual soil from underlying Mission Valley Formation
	1	····	
			SANDY SILT, tan, mottled with white marl, very clayey, sandy
5			
			lance film dance
		Mission	SANDY SILTSTONE, tan to mottled, deeply weathered, very clayey, firm, dense
		Valley	
<del></del>		Fm	
10			has a beaution clay matrix
<u> </u>		7/7	SANDY SILTSTONE as above, but darker brown and has a heavier clay matrix
<b> </b>			SPT driven from 11 to 12 feet
<b> </b>			
15	這		die alle von moiet
	SM		SANDSTONE, light gray, very fine to fine, silty, very moist
<b>—</b>	┪		
<b> </b>	┪		
1	-		
21	o o		fow top clayer lenses
	SM		SANDSTONE, light gray, well indurated, hard, calcareous, few tan clayey lenses
	ء ا		
1	T SP		
-	┪		as above, very hard to drill
1 2	5 80	8	A 1 21 Fact macower 1X" COPES OF VETY HAIR CARE PARTIES
<del>-</del>	Ť		ISANDSTONE, light gray, very well indurated, calcareous, line to mediam graines,
	38		grades to bluish in places, fairly well softed
<b> </b>	-		A four inch layer of very plastic clay - fracture infill
1	-		
3	30		Move drilling site 73' downslope and 6 feet lower in elevation and start drilling with rotary mud
			then start logging at a similar elevation.
1	┪	51/161/	
-	CI		124 SPT driven from 31 to 32.5 feet  CLAYSTONE, olive brown, massive, well indurated, sandy, dry,looks like caulk
1-	- 8		
1	35 c		
	一 [		
-		36/7	O SPT driven from 36 to 37 feet
	-		
-	7		
	40		the black want and undurated massive
	_		CLAYSTONE, dark olive green, w/ white blebs, very sandy, dry, indurated, massive
-	$\neg$	32/51	170 SPT driven from 41 to 42.5 feet
	$\neg$		
-		ile .	
	45		
			tina denne frights massive micaceous, calcareous, dry
		30/5	SILTY SANDSTONE, very fine, dense, friable, massive, micaceous, calcareous, dry
			SPT driven from 46 to 47.5 feet
	1	I	Fining down

		And the state of t
		SANDSTONE, greenish gray, medium grained, minor fine, slightly silty, micaceous,
i.P		
		calcareous Fining with depth
<b>1</b>		SPT driven from 57 to 58.5 feet
		Top of Stadium Conglomerate
	refusai	Conglomerate, variegated metavolcanic cobbles, very silty and clayey
		SPT could not be driven into cobbles
	Stadium	
	Congl	
5		Total depth to 65 feet 4/15/92
		Boring location is 160 feet right of station 208+26.5 on SR 125 centerline
. 60 6 11 - 00		11- SD- 125 PM 20.0 / 22.4 EA 010721
	.,	BORING LOG 492-1

Ī	سم	SPT	D Assembly drilling 2.7/8" - sampling w/140# dropped 30 2 1.4			
늬	soll	blown				
<b>*</b>	class	per 6"	dort olive green very pustic when wends, it was			
	СН	Topeo	Residual soil developed from underlying Mission Valley Formation			
	*		Residual soil developed from directory			
	CL	Missio				
	1	Valle				
5	1	Fm	ou TV CLAY dark yelo brown, very soft			
	丽	push.	CLAYEY SILT to SILTY CLAY, dark yelo brown, very soft			
	ig.	18.	Calif sampler push 18" from 5 to 6.5 feet			
			ti alauny aithy dansa			
10	SP		SANDSTONE, yelo gray, very fine, clayey, sitty, dense			
-	3	1	California sampler from 10 to 11.25			
	- ***		California sampler from 10 to 11.25 SANDSTONE, yelo gray, fine, some medium, silty, dense to v/ dense slightly indurated			
	-					
	-	<b></b> -				
-	<u>-</u>		dense to vidense			
1			SANDSTONE, yelo gray, fine to medium, friable, micaceous, massive, dense to v/dense			
	_ 37	18/32	SPT from 15 to 16.5 feet with 1.4 " soil sampler			
	_	<b></b>	SPI from 15 to 16.5 feet with 15 feet with 1			
	_					
	_					
2	0		SANDSTONE, grayish white, very fine to fine, very dense			
	S	P 34/	SANDSTONE, grayish white, very me			
_			SPT from 20 to 21 feet with 1.4 " soil sampler"			
			pink yery fine very dense			
2	25 8	P	SANDSTONE, grayish orange -pink, very fine, very dense			
		200	SANDSTONE, grayish orange -pink, very tine, very dense,  SANDSTONE, grayish brown, micaceous, clayey, silty, very fine to fine, very dense,			
	-		friable, laminated			
			SPT from 25 to 26 feet with 1.4 " sampler			
			the time arean indurated hard sandy <(10%),			
	30	CL CL	CLAYSTONE, brownish, medium to dark olive green, indurated, hard, sandy <(10%),			
	<del></del>	1	CLAYSTONE, brownish, medium to dark ouve green, made of the property of the control of the contr			
	_	1	massive, possible laminae(?)non- fissile, no reaction with 102, which is dilatency - moderate plastic when wet, , very brittle when rolled to 1/8" thread low to			
		-	medium dry strength			
		<u> </u>	SPT attempted at 30 feet drove 3 " with 100 blows			
_		_	SPT attempted at 50 feet drotes			
	35		0+ SPT attempted at 35 feet drove 3 " with 70 blows			
			0+ SPT attempted at 35 feet drove 3 miles			
		<u> </u>				
_						
-	40		Abrupt contact  38/46 SANDSTONE, pink yelo light gray, well sorted, angular - subround, massive, very dense			
-		SP 24	38/46 SANDSTONE, pink yelo light gray, well sorred, arrigular 5 suproduction			
_		"   <del>*</del>	38/46 SANDSTONE, pink yelo light gray, meaning sampler from 41.5 to 43 feet  120/30 SPT from 40 to 41.5 feet with 1.4 sampler and California sampler from 41.5 to 43 feet			
-						
L		-1-	Fining down			
<u> </u>			I filing down			
L	45	<b></b>	December yeary sitty			
L		<b> </b>	Becomes very silty			
L			pebbly zone			
Γ		≖	SILTSTONE, pinkish, very greasy touch			
T						
۲	50					
1		= -	efusal Too hard to sample with 1.4 " SPT soil sampler.			

55			SPT from 55 to 56 feet with 1.4" sell sampler
		39/70+	SANDSTONE, gray pink, medium, subround, very micaceous, coarseing down,
	*	39/104	very dense
	<b>2003</b>	Stadium	CONGLOMERATE, reddish gray, with varicolored metavolcanic & quartzite pebbles &
60		Cong	cobbles. Fragments surface as angular rock chips, mixed with coarse sand in a,
-60	ો કે દેવા 1480 કુ		silt and clay matrix
			Conglomerate as above
			Cored 3 feet with 2 7/8 inch diamond core bit
		100 Hers	
65	11.038.90	Hilimaloodalii	Total depth to 64 feet 4/17/92
			Boring location is 100 feet right of station 213+82 on SR 125 centerline
			11-SD-125 PM 20.0 / 22.4 EA 010721
			11- 5D- 125 TM 20.07 22.7
			BORING LOG 492-3

			BORING 492 - 5
1364°	aut set	Contagie	24" bucket suger & bag samples
dopth	class	formation.	Soil description and drilling remarks
		Mission	Boring at base of deep roadcut
		Valley	SANDSTONE, light gray, very hard, very dense, fine to medium, calcareous,
		Fm	well indurated, calcareously cemented
			Too difficult to drill
5			Cor ing bucket cannot cut it Terminate drilling
			Total depth to 4 feet 4/22/92
			Boring location is 230 feet left of station 219+77 on SR 125 centerline
manufaction to the con-			
			BORING LOG 492-5

See   Form a   Rotary must sampling with 3" pitcher barrel
SM Mission  Valley SANDSTONE, white gray fine grained well consolidated, very dense  Fin
Fm Fm
Fm Fm
5
5
10 CL CLAYSTONE, dark brown, silty ,sandy, very firm to hard, stringers of clayey sandstone
CL CLAYSTONE, dark brown, silty ,sandy, very limit to haid, stringers or stay y
å
SC
15
CL Cut two feet with pitcher barrel - recovered 4 inches
CLAYSTONE, dark brown very still to hard,
Cut two and a haif feet - recovered 2' 6"
25
fine to modium, with few interbeds
SANDSTONE, light gray, very dense, calcareous, fine to medium, with few interbeds
of claystone which is dark brown, very stiff to very hard
35 CL CLAYSTONE, red, hard, silty
SM
Cut 1.5 feet recovered 1.2 feet
SANDSTONE, gray, very dense, very fine to fine grained, well cemented
40
45 cond cobbles of metavolcanics origin, v/dense
CONGLOMERATE varicolored pebbles and cobbles of metavoles.
Stadium CONGLOWICI STORY Conservation Conservation Cong Too hard to drill with tricone change to drag bit but it is still very difficult to drill
CONGLOMERATE as above, well cemented, very dense
5070000 VI V V V V V V V V V V V V V V V V
Boring location is 134 feet right of station 222727 on Sk 122
11-50-123
BORING LOG 592-18

نسم .	Contrate	BORING 492 = 8  18" bucket suger bagging samples of lithologic changes and driving 2" modified California samples
- 148	Permittee	15, process wides, pedding sembles of improvious remains
a dan	& sample	Soil description and drilling remarks SANDSTONE, white gray, fine grained, moderately dense, to very dense
934		SANDSTONE, white gray, fine grained, moderately deliber, to very
	Mission	
	Valley	
	Fm	
5		
_		
_		
_		
_		
10		CLAYSTONE, dark brown, silty, very stiff, damp
cl	I THE THINK	CCATSTONE, GERESON, SAY,
_	<b> </b>	
7		
15	ļ	Thin lense of clayey sandstone
		That long of one of
	<b> </b>	
	-	
20		
~		CLAYSTONE, dark brown, very stiff, damp
$\neg$	14000000	
_		the section of the medium submund damp
- 8	M	SANDSTONE, light gray, very hard and dense, fine to medium, subround, damp
25		
		Attempted sample at 25 feet but rock is too hard.
30		
	Miss	
	Valk	
35	Fn	SANDSTONE, dark gray, pebbly, too hard to drill with bucket auger
	W	SANDSTONE, dark gray, pobby,
		Total depth to 37 feet 4/21/92
		Boring location is 143 feet right of station 222+30 on SR 125 centerline
		TA 010721
		11- SD- 125 PM 20.0 / 22.4 EA 010 / 21

Elev	sace		BORING 492 - 9
724'	self	Goologie	18" bucket auger retrieved 30 bag samples
dopth	ciass	Formation	Soil description and drilling remarks
		Stadium	CONGLOMERATE, dark brown, cobbles to 5", abundance of sand and clay in matrix
		Congl	cobbles comprised of meta volcanics and quartzite in a variety of colors, very dense
			cobbles comprised of frieda voicanics and quantities in a voicanic and quantities a
		<u> </u>	
5			
			CONGLOMERATE as above with localized lenses of clayey sand, light brown
			CONGEONETATE as above will to
	-		
10			
<del>                                     </del>			
			Cobbles to 12 inches
<del> </del>			
15	5		As above with 10 % of cobbles between 3 and 14 inches in size
<del>  ``</del>		1	
	-		
			Obtained 30 sacks of this conglomerate from boring for laboratory tests in Sacramento
20	5	Stadium	
		Congl.	to the beautiful color
			CONGLOMERATE as above but predominately orange rusty color
			, we have a
2	5		with sector videose visandy 8' cobbles common
			CONGLOMERATE, light gray, poorty sorted, v/dense, v/ sandy, 8' cobbles common
	_		the state of the s
·L			Trace of green bentonitic clay  Too many large cobbles in conglomerate. Bucket auger is slow and ineffective.
			Total depth to 30 feet 4/15/92
3	0		Boring location is 90 feet right of station 229+90 on SR 125 centerline
			11- SD- 125 PM 20.0 / 22.4 EA 010721
-			
1			BORING LOG 492-9

1192-3

			1 id to 10 t
737	-	Blows	Rotary mud drill - drilling 4.5" hole sampling with 140 lbs weight & 30" drop on 1.4" sample barrel
depth (	dass	per 6"	Soil description and drilling remarks
			STADIUM CONGLOMERATE producing variegated angular chips of volcanic
			rock heavy amount of sitty clay with a reddish brown color, very sandy, very dense
		Stadium	
	2.22		
	_	Congl.	
5	_		
	_		
10			
	<b>~~</b>		
	-		
	-		CONGLOMERATE as above
<b></b>			OUNGLOWLIVITE W WOTO
15			
20		······································	
-	-		
<b>  </b>			
			Heavy amount of clayey sand, reddish brown
			Heavy allouit of curyoy curts, to
25			
30			
			the bound amount of sand widense
			CONGLOMERATE, as above variegated rock chips with heavy amount of sand, v/dense
35			some clay matrix, light brown, pliable ,silty
1			
-	-		
	-		
40	4		CONGLOMERATE as above abundance of purple rock chips
<u> </u>			CONGLOMERATE as above abundance of purple restriction
		<u> </u>	
			ting to goams, heavy clay matrix
	sc		SANDSTONE, light gray brown, very dense, fine to coarse, heavy clay matrix,
45	5]		
	1	<u> </u>	La bia of volconia rock
	30		CONGLOMERATE, very dense, producing variegated angular chips of volcanic rock
<b> </b>			abundance of carmel colored glassy chips but a heavy amount of silty clay with a reddish
	-	l	brown color, very sandy
50		<b>!</b>	Difficult drilling
1 30	0	1	
	-	1	
1		<b>2</b>	

: الحد	-	
55		
		CLAYEY SANDSTONE, white and light brown clay matrix, very dense
sc		
		SILTSTONE, white, v/ clayey to sandy, very well consolidated, very dense, well cemented
		SILTSTONE, Write, W Clayey to sairby, voi)
60 SM		an and the fact All in the bloom and refurms
	NOTE	
		Pebbly sediments and conglomeritic lenses  Pebbly sediments and conglomeritic lenses  Pebbly sediments and conglomeritic lenses
		Pebbly sediments and conglomeritic lenses  CONGLOMERATE, gray brown overall cast, very dense, produces angular variegated
		chips, very clayey, sandy matrix and sandstone lenses
<b>6</b> 5		
-		
-		
70		
75	<b>!</b> -	
		CONGLOMERATE as above
		CONGLORE IVITE TO
80		
	Stadiun	
	Cong	
85		" good sorting frighte rotten some
sc	*	SANDSTONE, gray brown , very dense, fine to medium, good sorting, friable, rotten, some
	<b> </b>	grains turns to clay easily
	<b></b>	grains turns to only
	<b> </b>	
	<b></b>	
90		CONGLOMERATE, gray brown cast, v/dense, produced from sandy clay matrix but pebbles
		& cobbles produce many vari-colored, hard angular rock chips, very sandy
		& cobbles produce many vari-colored , hard arrigum rock of the
		Hard ,slow drilling
95		
- 53	<b></b>	End drilling 11/19/92
<b>  </b>		
<b></b>	<b>%</b>	
<b></b>		
100		
405		SANDSTONE, tan , fine to medium, very dense
105	<u>``</u>	UNITED ( 41TH)
		CONCLONEDATE as above robbly
		CONGLOMERATE, as above, cobbly

의		
		CONGLOMERATE, varicolored, sand matrix, scattered lenses of clayey sand
		Oo/(dcom2)
5		
_88		
20	·	
		The Proposition
sc	Friam	Change is believed to be top of sand section of the Friars Formation
_	Fm	FRIARS SANDSTONE, tan, fine to medium,
<del></del>   }-		Sand grains grade into mostly fine
25		Sain gland glad me
-1::1	<u></u>	
-1 1		
30,		
35		
	<b></b>	fire to fine grained many multi-colored
140	·	SANDSTONE, tan to olive tan, very fine to fine grained, many multi-colored
		grains  End drifling for the day @ 140 ft on 11/23/92
		End arming for the edy G
145		SANDSTONE, tan, fine to medium with scattered peobles and gravel lenses
143		
150		TOUT alive groop
		CLAYEY SANDSTONE, olive green,
	<b></b>	SANDSTONE, dark brown to tan with varicolored grains and scattered cobble lenses
		SANDSTONE, Cark blown to tan man value of
	<b> </b>	
155	<b>.</b>	CONGLOMERATE, pebbles and cobbles in a sand matrix
	<b></b>	CONGLONILI WITE, PODE CO.
160		Total depth to 160 feet 11/24/92
.00	¥4	Boring location is 320 feet left of station 245+38 on SR 125 centerline  11 SD 125 pm 20.0 / 22.4 EA 010721
		20.0 / 22.4 FA 010721

io	Cold	SPT	BORING 1192 - 2  Rotary mud drill - drilling 4.5" hole sampling with 140# weight & 30" drop on 1.4" sample barrel.
<b>N</b> '	nell	Blows per 6"	Set description and drilling remarks
ptk	cpres	per v	OTABLIA CONGLOMERATE red brown oxided coating on
			multi-colored cobble and pebble chips, heavy amount of coarse sand.
		Stadium	
	1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	Congl	
5			
			Hard drilling probably on a cobble concentration
			least framents
10			CONGLOMERATE as above but mostly green brown rock fragments
		<u> </u>	
15	5	1	SANDSTONE, red brown, dense, well sorted, medium grains
	SM		CONGLOMERATE, greenish gry brown, very sandy and very clayey
			CONGLOMERATE, greenish gry blown, very carry
	_		
2	0		
	_	<b></b>	CLAYEY SANDSTONE, light brown to tan, very fine to silty, v/dense, poorly indurated
	_  sc		CLAYEY SANDSTONE, light bloth to tall, 157
	_		
	_		
_2	5		
	-		
	-		
	-		CLAYEY SANDSTONE, gray, heavy amount of sticky clay, dense to v/ dense, fine
	S		grained
	0		grained
		<b></b>	CONGLOMERATE, as above
	S		CLAYEY SANDSTONE, light gray, fine, silty heavy amount of sticky clay
-	35	<b></b>	
	~		to the sking from broken
			CONGLOMERATE, gray from silty sand matrix, with multicolored rock chips from broken
_			cobbles and pebbles
	40		
		M	SANDSTONE, vari-colored, poorly sorted grains, very dense
	-1		
	_		
	45		
	_		to describe from broken cobbles, very sandy
	G	<b>S</b>	CONGLOMERATE, gray, vari-colored angular chips from broken cobbles, very sandy
	50		

CONGLOMERATE as above with heavy sand matrix  Studium  Cong  Cong  Cong  Cong  Change is believed to be top of sand section of the Frater Formation.  Frian SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey  Fin poorly consolidated  Strieb CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey  poorly cemented  CLAYSTONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  ST & SC CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  ST & SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  ST & detree from 90 to \$1 feet  Trace of white clay  ST & detree from 90 to \$1 feet  ST GANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  ST & SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable		1 200		Hard drilling probably a heavy concentration of large cobbles
CONGLOMERATE as above with heavy sand matrix  Sudawn  Cong  Change is believed to be top of sand section of the Pratrix Formation.  SANDSTONE. red brown, from oxidation fine to medium, very dense, very clayey  SET drives from 70 to 71 feet  SET60 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey, poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SET drives from 80 to 91 feet  ST7.65 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SET drives from 90 to 91 feet  90  SET drives from 100 to 101 feet  90  SET drives from 100 to 101 feet  81  SET drives from 100 to 101 feet  81  SET drives from 100 to 101 feet  82  SET drives from 100 to 101 feet  82  SET drives from 100 to 101 feet  82  SET drives from 100 to 101 feet  83  SET drives from 100 to 101 feet  84  SET drives from 100 to 101 feet  85  SET drives from 100 to 101 feet  86  SET drives from 100 to 101 feet  87  SET drives from 100 to 101 feet  87  SET drives from 100 to 101 feet  87  SET drives from 100 to 101 feet  88  SET drives from 100 to 101 feet  89  SET drives from 100 to 101 feet  SET drives from 100 to				titue strimis house,
CONGLOMERATE as above with heavy sand matrix  Sudaware  Cong  Change is believed to be top of and section of the Frairs Formation.  SANDSTONE. Fed brown, from oxidation fine to medium, very dense, very clayey  SPT drives from 70 to 71 fed  SST60 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, w/ clayey poorly cemented  CL CLAYETONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, w/ dense, very silty, w/ fine to fine, poorly cemented  CLAYETONE, white dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, w/ dense, very silty, w/ fine to fine, poorly cemented  SST drives from 90 to 81 fed  SST drives from 90 to 91 fed  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		<u> </u>		
CONGLOMERATE as above with heavy sand matrix  Sudaware  Cong  Change is believed to be top of and section of the Frairs Formation.  SANDSTONE. Fed brown, from oxidation fine to medium, very dense, very clayey  SPT drives from 70 to 71 fed  SST60 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, w/ clayey poorly cemented  CL CLAYETONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, w/ dense, very silty, w/ fine to fine, poorly cemented  CLAYETONE, white dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, w/ dense, very silty, w/ fine to fine, poorly cemented  SST drives from 90 to 81 fed  SST drives from 90 to 91 fed  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  SST drives from 100 to 101 fed  ALTIPS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable				
Succious  Cong  Change is believed to be top of sand section of the Pretire Formation.  SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey poorly consolidated  SPT derives from 70 to 71 feet  S2160 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, w/ fine to fine, poorly cemented  SST defores from 80 to 81 feet  ST detore from 80 to 81 feet  ST detore from 90 to 91 feet  SST detore from 90 to 91 feet  ST detore from 90 to 91 feet  SST d	<b>5</b> 5			
Successions  Cong  Change is believed to be top of sand section of the Preirs Formation.  SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey poorly consolidated  SPT derives from 70 to 71 feet  SANDSTONE, gloiden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYEY SANDSTONE, gloiden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYETONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SPT derives from 80 to 81 feet  SPT derives from 80 to 81 feet  SPT derives from 90 to 91 feet  SPT derives from 9				
Successions  Cong  Change is believed to be top of sand section of the Preirs Formation.  SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey poorly consolidated  SPT derives from 70 to 71 feet  SANDSTONE, split of the poorly consolidated  CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, w/ clayey poorly cemented  CLAYETONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, w/ dense, very silty, w/ fine to fine, poorly cemented  SPT derives from 80 to 81 feet  SPT derives from 80 to 81 feet  SPT derives from 80 to 91 feet  SPT derives from 90 to 91 feet  SP				III have send matrix
Successions  Cong  Change is believed to be top of sand section of the Preirs Formation.  SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey poorly consolidated  SPT derives from 70 to 71 feet  SANDSTONE, gloiden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYEY SANDSTONE, gloiden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYETONE, white, dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SPT derives from 80 to 81 feet  SPT derives from 80 to 81 feet  SPT derives from 90 to 91 feet  SPT derives from 9			(	CONGLOMERATE as above with heavy sand matrix
Change is believed to be top of send section of the Pretra Formation.  Change is believed to be top of send section of the Pretra Formation.  Prisar SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey poorly consolidated  SPT derives from 79 to 71 feet  SPT 4 crives from 79 to 71 feet  SPT 4 crives from 79 to 71 feet  SPT 4 crives from 79 to 71 feet  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sity, v/ fine to fine, poorly cemented  SPT 4 crives from 90 to 91 feet  SPT 4 crives from 100 to 101 feet				
SC CLAYET SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey  Privat SANDSTONE, red brown, from oxidation fine to medium, very dense, very clayey  Privat Privatives from 79 to 71 feet  S2716 CLAYET SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey  poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYET SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  CLAYET SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  S7716 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  S7716 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  S7116 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  S7116 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  S7116 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  S7116 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	80	— التنافي		
Frian SANDSTONE, red brown, from oxidation little to medium, very dense, poorly consolidated  SPT drives from 79 to 71 feet  SS160 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYEY SANDSTONE, light gray, v/ dense, very silty, w/ fine to fine, poorly cemented  CLAYEY SANDSTONE, light gray, v/ dense, very silty, w/ fine to fine, poorly cemented  SS7 drives from 89 to 81 feet  SS7 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT drives from 90 to 91 feet  SS16 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable psi  SS7 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable psi  SS7 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable poorly clayer, very friable properties of the poorly clayer, very friable poor	- 60		Cong	
Frian SANDSTONE, red brown, from oxidation fille to friedman, very dense, from poorly consolidated  SPT drives from 79 to 71 feet  SS160 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, sitty, v/ clayey poorly cemented  CLAYET SANDSTONE, light gray, v/ dense, very sitty, w/ fine to fine, poorly cemented  CLAYET SANDSTONE, light gray, v/ dense, very sitty, w/ fine to fine, poorly cemented  SS7 drives from 89 to 81 feet  SS7 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT drives from 90 to 91 feet  90  SPT drives from 90 to 91 feet  SS16 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  95  SSN SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  SST drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		636565688		Change is believed to be top of sand section of the Frairs Formation.
Fin poorly consolidated  SPT detves from 70 to 71 feet  SS/160 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CLAYSTONE, white dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, w/ fine to fine, poorly cemented  SX SX SYT detves from 50 to 31 feet  SYT detves from 90 to 91 feet  Trace of white clay  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  953 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  953 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  954 SANDSTONE, light gray, wedium, some fine, very dense survey dense but w/poorly cemented, friable  955 SANDSTONE, light gray, wedium, some fine, very dense survey dense survey friable  955 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		SC _		CANDSTONE red brown from exidation fine to medium, very dense, very clayey
SPT drives from 70 to 71 feet  SS7160 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CL CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SVI CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SVI SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  953 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  954 SANDSTONE, light gray, wedum, some fine, very dense but w/poorly cemented, friable  955 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			Friars	SANDSTONE, 16d blom, now
SPT drives from 90 to 91 feet  SST 60 CLAYEY SANDSTONE, golden some gray, very dense, fine to medium, silty, v/ clayey poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  SST drives from 90 to 91 feet  ST7165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT drives from 90 to 91 feet  900  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  910  SST drives from 100 to 101 feet  61795 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  61795 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			Fm	poorly consolidated
Series CLAYEY SANDSTONE, golden some gray, very dense, mile formation, poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sitty, v/ fine to fine, poorly cemented  SM SPT detives from 80 to 81 feet  S7/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT derives from 90 to 91 feet  90 SPT derives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  965 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  100 SM SPT derives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	65			
Series CLAYEY SANDSTONE, golden some gray, very dense, mile formation, poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sitty, v/ fine to fine, poorly cemented  SM SPT detives from 80 to 81 feet  S7/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT derives from 90 to 91 feet  90 SPT derives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  965 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  100 SM SPT derives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		1 7		
Series CLAYEY SANDSTONE, golden some gray, very dense, mile formation, poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sitty, v/ fine to fine, poorly cemented  SM SPT detives from 80 to 81 feet  S7/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT derives from 90 to 91 feet  90 SPT derives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  965 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  100 SM SPT derives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	<b></b>	<b> </b>		
S2160 CLAYEY SANDSTONE, golden some gray, very dense, mire formation, and poorly cemented  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sitty, v/ fine to fine, poorly cemented  S21  S21  S22  S23  S24  S25  S25  S26  S27  S27  S27  S27  S27  S27  S27		┨┈╏╴		
Series CLAYEY SANDSTONE, golden some gray, very dense, medium, fair sorting, friable, very dense  CL CLAYSTONE, white , dissolves into the drilling mud readily  CLAYEY SANDSTONE, light gray, v/ dense, very sitty, v/ fine to fine, poorly cemented  SM  SPT detrees from 20 to 21 feet  S7/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT derives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  965  SPT derives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		<b> </b>		
Series CLAYEY SANDSTONE, golden some gray, very dense, microtriness, mic		<b> </b>		70 to 71 fast
poorly cemented  CL CLAYSTONE, white, dissolves into the drilling mud readily  CL CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  ST/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SFT drives from 90 to 91 feet  90  SFT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  100  SSS SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  1100  SSS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  1101  SSS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	70			SPT drives from 70 to 71 see
poorly cemented  CL CLAYSTONE, white, dissolves into the drilling mud readily  CL CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cemented  ST/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SFT drives from 90 to 91 feet  90  SFT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  100  SSS SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  1100  SSS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable  1101  SSS SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			58/160	CLAYEY SANDSTONE, golden some grays vary
CL CLAYSTONE, white , dissolves into the drilling mud readily CL CLAYEY SANDSTONE, light gray, v/ dense, very slity, v/ fine to fine, poorly cemented  SM SPT driven from 90 to 91 feet Trace of white clay  85  SPT driven from 90 to 91 feet 95  SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable 95  SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		7		poorly cemented
SET drives from 80 to 81 feet  S77.65 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  100 SM  SPT drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		<b>1</b> 1		and the second s
SSI  SSI  SSI  SSI  SPT driven from 90 to 91 feet  Trace of white clay  SPT driven from 90 to 91 feet  SSI  SSI  SPT driven from 90 to 91 feet  SSI  SSI  SSI  SSI  SSI  SSI  SSI		-		CLAYSTONE, white, dissolves into the drilling mud readily
80  SFT drives from 50 to 51 feet  57165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SFT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  953  SFT drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable				CLAYEY SANDSTONE, light gray, v/ dense, very silty, v/ fine to fine, poorly cernemos
SPT detrees from 80 to 81 feet  57/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT detrees from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  100  SM SPT detrees from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	_7	ol sc		CLATET OARBOTOTT, T
SPT driven from 90 to 81 feet  S7/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, friable, very dense  Trace of white clay  SPT driven from 90 to 91 feet  95716 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  958  959  100 SM  SPT driven from 90 to 91 feet  95716 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  100 SM  SPT driven from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		⅃⅏Ӏ		
57/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, master, review Trace of white clay  85  85  90  97  97  SPT driven from 90 to 91 feet  95/216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  95  95  95  95  SM  SPT driven from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		SM		
57/165 SILTY SANDSTONE, light gray, fine to medium, fair sorting, meters, cv, Trace of white clay  85  90  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  100  SM SPT drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable				
57/165 SILTY SANDSTONE, light gray, fine to medium, rail sorting, measurement of Trace of white clay  85  90  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable some fine of the control of th	<del> </del>	-		
57/165 SILTY SANDSTONE, light gray, fine to medium, tail sorting, measuring,	0	<del>,        </del>		SPT drives from 80 to 81 feet
85  SPT drives from 90 to 91 feet  95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable  95  95  95  100  SM  SPT drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		4		SILTY SANDSTONE, light gray, fine to medium, fair sorting, triable, very decise
85  90  SPT drives from 90 to 91 feet  95/216 SANDSTONE, light gray, medium, some fine, very dense but w/poorly cemented, friable  95  100  SM  SPT drives from 100 to 101 feet  61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		_	5//165	Trace of white clay
SPT drives from 90 to 91 feet 95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable 95 100 SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	L	_		Trace of write only
SPT drives from 90 to 91 feet 95216 SANDSTONE, light gray, medium, some fine, very dense but v/poorly cemented, friable 95 100 SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	1			
SPT drives from 90 to 91 feet  95  95  95  95  100  SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable				
SPT drives from 90 to 91 feet  95  95  95  95  100  SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	1	5		
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	<del>    `</del>	┧∭	1	
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	-	-	<b>!</b>	
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		_	<b></b>	
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable				
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			<b>L</b>	
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable		70 <b>1</b>		SPT driven from 90 to 91 feet
95  100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	-	-	95/216	6 SANDSTONE, light gray, medium, some time, very defice but in page 1
100 SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	<u> </u>		1	
100 SM SPT driven from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			<b></b>	
100 SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable	<u></u>	_	<b></b>	
100 SM SPT drives from 100 to 101 feet 61/195 SANDSTONE, light gray, very dense, medium w/ fair sorting, slightly clayey, very friable			<b></b>	
		95		
		<b>-1</b> :::		
	-	-1		
	1		1	
			<b>}}</b>	SPT driven from 100 to 101 feet
		UUIS		CANDSTONE light gray, very dense, medium w/ fair sorting, slightly clayey, very made
105			61/19	95 SANUSTONE, ngin giay, vory
105				
105		4		
105				

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110		SANDSTONE , light gray, very dense, medium, grained, fair sorting, friable
314	75/150	SANDSTONE, light gray, very dense, medium, grained, rain services
***		SPT driven from 110 to 111 feet
		- Marad pabblo
115		Clayey with few scattered pebble
120		SANDSTONE, light gray, very dense, very fine to medium, silty to clayey, very friable
	160/280	SANDSTONE, light gray, very dense, very
		SPT driven from 120 to 121 feet
125		CONGLOMERATE, variegated rock chips, very clayey and sandy, very dense
	<b></b>	CONGLOWERATE, vanogates
		SANDSTONE, light gray to light brown, with orange limonitic laminations, very dense,
130 33		
<b> </b>	160/60	SPT driven from 130 to 131 feet
<u> </u>		SFI WINCH HOW IV
135	<b></b>	
133	<b>X</b>	SANDSTONE, light gray brown, very dense, very fine to fine, fair sorting
s	<b>X</b>	
	<b></b>	
140		Total depth 140 feet 11/18/92
1.40	336	Boring location is 150 feet left of station 246+75 on SR 125 centerline
		11 SD 125 pm 20.0 / 22.4 EA 010721
		BORING LOG 1192-2

, ],	Reld		BORING 1292 -4
	evil.	Goologie	30" bucket auger with downhole visual logging - no sampling
	chas	-	Solt description and dritting remarks
			SLOPE WASH
_			CLAYEY SANDSTONE, gray brown, moderately dense,
		Friers	
	SW	· Fm	and personal extremely clayer gray brown, many pebbles
5	4		CONGLOMERATIC SANDSTONE, extremely clayey, gray brown, many pebbles
	oc		and cobbles, dense, moist to very moist
10			
			CLAYEY CONGLOMERATIC SANDSTONE, as above out red
	sw		
		<u> </u>	TOU TY OF A VOTONIE dark brown a large lefticular body, locally a silver
15			moist and non plastic, curved lenticularly shaped contact
			moist and non plastic, curves to the
	星	<b></b>	
		<b></b>	SANDY CONGLOMERATE, very clayey, dense, moist, cobbles to 4 inches
		<b></b>	SANDIOCINECONIE
20	٠	<b></b>	had a layer but
			GRAVELLY, CLAYEY SANDSTONE, light gray to yelo brown extremely clayey, but
	_  s»	<b> </b>	medium dense to dense
	-		
2	5 88	<b>}</b>	SANDSTONE, light gray, fine to medium, dense some silt and clay in matrix contains
	<b>−</b> ₹‱	88	long, near vertical fractures.
		(X)	· · · · · · · · · · · · · · · · · · ·
	-  **		
	-[	Frian	
-3	0	Fm	
	$\tilde{-}$		
			SILTY CLAYSTONE, dark brown, hard, grades gradionally into underlying sandstone
	- \big ^\c	L	SILTY CLAYSTONE, dark brown, hard, grades gradionally into the says
	7		
- 3	35		SANDSTONE, light gray, very fine to fine, silty, dense to very dense, but friable
		м	SANDSTONE, light gray, very fine to fine, sury, defise to very
	40		
			Rough , horizontal contact CLAYEY SILTSTONE, dark brown, dense to very dense
			CLAYEY SILTSTONE, dark brown, denot to tay
	_		
L			
l l	45		

	Frie	
	Fm	
50		horizontal contact SILTY SANDSTONE, yelo brown, to medium gray, slightly clayey, dense to very dense
55		Total depth to 55 feet 12/16/92
		Boring location is 50 feet right of station 249 +50' on SR 125 centerline
a complete the second		11- SD- 125 PM 20.0 / 22.4 EA 010721
		BORING LOG 1292-4

Rold	upt	BUHING 1192 - 1  Rotary mad drill - drilling 4.5 "hole sampling with 140# weight dropped 30 " on 1.4 " sample barrel
***	Biowe per 6 *	Soil description and drilling remarks
chass		or one wastly gravel and cobbles in clavey sand matrix
	Slope-	CLAYEY SANDSTONE, gray, medium dense, medium grained, many pebbles
\$C	wash	OLATET GARGOTOTO, 3-7.
	ļ	
	Friers	
	Fm	,
		CLAYEY CONGLOMERATE, gray, very sandy matrix, with interbeds of sandstone, dense
7		CLAYEY CONGLOMERATE, glay, very sairdy manual, mineral
	<u></u>	
sc		CLAYEY SANDSTONE, gray, dense, fine to coarse, pebbly
		CONGLOMERATE, gray, very sandy and clayey, dense
se		CLAYEY SANDSTONE, gray, fine to medium, many pebbles
<b>~</b>	1	
		CONGLOMERATE, sandy as above
30		SANDSTONE, gray, very clayey to pebbly
30		CONGLOMERATE as above
200000		CLAYEY SANDSTONE, gray, dense, poorly sorted, round-subround,
SC		
	<u> </u>	SILTSTONE, light green brown, with very fine sand, very dense
	55/4	1 A sale level down and after drilling operation
SC	-	SPT driven at 25 to 26 feet
ł	Frair	
┨∭	Fm	CANDSTONE light green gray slightly clavey and sirry, very time to line, very dense
		O/MOO! O.M., 3
4	45,000	30 SPT driven at 30 to 31.5 feet
-	45/80/	JO STI WINCE 200
-		
-	<b></b>	LOST CIRCULATION
4	<b></b>	Drilled the rest of the boring without regaining circulation again
2	<b>I</b>	Number Mee Leaf on our
-1	<b> </b>	
4	<b>I</b>	
_	<b>I</b>	
_	<b></b>	10.416.4
<u> </u>	<b> </b>	SPT driven from 40 to 41 feet  40 SANDSTONE, light gray, very dense, mostly medium with abundance of fine poorly
_	40/1	40 SANUSTONE, HIGHLY GRAP, Very Geriso, History History
	<b>I</b>	cemented with maroon clay lenses.
_		
5		
<b>∽</b> ¦∵∷		
7		
		aller appears condy
		SILTY CLAYSTONE, gray, hard but plastic when wet, very silty appears sandy
	CL &	SILTY CLAYSTONE, gray, hard but plastic when wet, very silty appears sandy grades to clayey siltstone

	<b></b> [		SANDSTONE, light gray, very dense, medium, poorly cemented, moist
<b>5</b> 5			
			Ne circulation
60			SPT driven from 60 to 61 feet
		104/288	SANDSTONE, gray, very dense, fine to medium, well indurated, hard, , moist
	<b>₩</b> [		SPT driven
65	<b></b>		
70			SPT driven from 70 to 71 feet SANDSTONE, gray, v/dense, fine to medium, massive, well indurated, small lenses
		73/215	SANDSTONE, gray, Woense, line to medicini, massive, won incuration, control of the control of th
			of marroon claystone
75			
		· ·	
			Committee of the Police
			ISP1 driven from 80 to 81 feet
80			CLAYEY SILTSTONE, light green gray, very dense  Total depth to 81 feet 11/17/92
		50/160	Boring location is 95 feet right of station 249+50 on SR 125 centerline
			11- SD- 125 PM 20.0 / 22.4 EA 010721
			BORING LOG 1192-1

İ	sell İ	permentan	30" bucket auger - bag sampling lithore or changes and downhole visual logging
١,	class	A medicade	Soil description and drilling remarks
+-	SM	FUL	Soil description and drilling remarks SILTY SAND, yelo gray, loose, with some organic debris intermixed, with chunks of
١.	<b>***</b>		claystone, grades very clayey with depth , dry
Ŧ.	∭⊦		Gay Stories, 3.
	<b>**</b>		
	<b></b>		
	SC.		- Habble Industrial Interpodded layers of soft
	al	Friers	SILTY CLAYSTONE, sandy, dark brown, slightly indurated, interbedded layers of soft
1	~ h	Fm	Intable sandy siltstone, dry with clayey siltstone lenses and rootlets to 6 feet.
4	ł	F 168	
4	ı		As above but very micaceous, very silty and slightly damp
1			As above but very micaceeds, very emy
)	1		
1	Į		Very large caliche pockets
1	- 1		dilli sample toggly you
1	<b>T</b>		SILTSTONE, light brown, mottled, micaceous, , very friable, , very sandy, locally very
			clayey, dry, firm and well indurated
_			clayey, dry, mm care
5			
			I to tracked broadlar content
٦	a	· ·	CLAYSTONE, red brown, well indurated, irregular contact
-1	SM		SANDSTONE, light gray, slightly indurated, moderately well sorted, fine to medium grains
0			scattered lenses of claystone
4			Scattered Tellipson
		ļ	
			in the standard closes
5		<b> </b>	Concentration of pebbles and cobbles in lenticular accumulation, well rounded clasts
.5		<b>!</b>	silt and sand matrix with grains favoring the very coarse size
		<b>]</b>	Silt and Salid matrix war grams with a
			town brown year firm, well indurated
			Thin interbeds of SILTSTONE, green brown, very firm, well indurated
_			
30			
-	<b>₩</b>		
		<b></b>	
	1		
	]	<b></b>	
35	1		descending thin lumination
	┨⋙		SILTY SANDSTONE, gray, fine to medium, micaceous, dense, contains thin lamination
_	-  ₩	<b></b>	
	-	1	
	_]	<b>1</b>	firm to you firm horizontally bedded
-	] a		CLAYSTONE, brown, firm to very firm, horizontally bedded GRAVEL traps, some lens imbricated and claystone ripups to 3 feet
40	az To	i i	GRAVEL traps, some lens imbricated and claystone npups to 3 leet
	┪┈		
	-	<b>I</b>	SILTY SANDSTONE, gray, fine to medium with black micaceous laminations,
	- ◎	<b></b>	bedding is horizontally oriented with some low angle cross bedding.
		<u> </u>	Deciding is nonzontally officials that
		1	
4	51		
-7	4	1	
		<b>I</b>	
	_	<b>I</b>	
		<u> </u>	
5	히		
<u> </u>	4	<b>1</b>	
	-1	1	
	_]		contains a few peoples and cobbles & steep dipping
	C	ı	CLAYSTONE, dark olive, green, contains a few pebbles and cobbles & steep dipping
	7	N72W	rass slickensides from comtemporaneous deformation shears dip south 1999
			7339 Total Depth 55' Oct. 2, 1992
-	5		/339
5	5	N57W	Total Depth \$5

Eler	Andri		BORING 592 - 10
973°			24" bucket auger bagging samples of lithologic changes
Dopth	ciase	Fermalia	Soil description and drilling remarks
		Topsoil	TOPSOIL -CONGLOMERATE, dusky yelo brown, silty, sandy, clayey, loose, highly
		COVER	organic, dry, meta-volcanic cobbles, matrix supported
		on	Becomes variegated and moist and cohesive at 3', plastic, micaceous
		landslide	
5		debris	Dark yelo brown, very moist mixture of clay, sand and cobbles
			CANDOTONIS and CONCLOMEDATE
	CL		Mostly CLAYSTONE but intermixed with SANDSTONE and CONGLOMERATE
			dark yelo brown, very moist, moderately loose many cobbles and pebbles in clay
10		Qls	
			Gravelly, sandy, clay
15	::::::::::::::::::::::::::::::::::::		CLAYEY SAND, olive brown, moist, medium dense,
ļ	8C	<b></b>	CLAYEY SAND, olive brown, most, mediam dense, CLAYEY to COBBLEY SAND, olive yelo, coarse, dry, subangular to subround grains
<u> </u>		ļ	CLAYEY TO COBBLEY SAIND, ONVE YER, COMISS, CITY, SECRITISE TO
			PEBBLEY SANDSTONE, reddish dark yelo brown, slightly to moderately indurated
			appears to have lenses of sandy clay
20			appears to have lenses or sainly only
			Landslide debris
<del> </del>	***		Lai Naide Cebia
<u> </u>			
25	CL	<del> </del>	SANDY, SILTY, GRAVELLY CLAY, dark yelo brown, plastic waxy luster, may be
1-23	I &	<u> </u>	slickensides formed by internal sliding at 24 feet
	CH	<b></b>	Boulders common
<b> </b>	<b>1</b> ⋯	<del> </del>	
<b></b>	CL	<u> </u>	
30	-	<b> </b>	CLAY, Cobbly, pebbly, sandy, silty and clayey SAND ,reddish brown, slightly moist
	SP		landslide mixture appears like terrace deposits or soil horizon
	1		
	CL	Qls	Landslide debris
35	4		CLAY as above very cobbly
	GC	1	
	CL		
			Total depth to 39 feet 5/06/92
			Boring location is 200 feet left of station 260+25 on SR 125 centerline
			11- SD- 125 PM 20.0 / 22.4 EA 010721
			BORING LOG 592-10
[			BUNING LOG 392-10

lev.			BOHING 1093 - 2  30" bucket auger - bag sampling lithologic changes and downhole visual logging
505'		ormation & attitude	1 Al and deliling remarks
epih	CL	FILL	SILTY CLAYSTONE, topsoil, dark brown with intermixed gray sand, dry, firm to loose
	Cr.	FILL	
	- 1		
	1		
5			
	•		
			LANDSLIDE DEBRIS, / CLAYSTONE, dark brown to reddish brown, damp, moderately
	CL	Qls	loose, contains abundance of caliche
10			Hoose, Contains abundance or comerce
<del></del>			
15			
	•		
	1		
20			
	]		
	]		
	j	L	L. W. shonger into gendetone
	•		Becomes sandy and gradually changes into sandstone
25	1		tichle enterior fine to medium moist
	SC	Qls	SANDSTONE, pale pink , friable, arkosic ,fine to medium, moist
			slightly clayey
	1		
30	)		
	1		
	1		
	7		
35	5		
	1		and the second many caliche
	CL		CLAYSTONE: dark brown, red brown and dark green, contains many caliche
	1		seams and nodules, dense, very firm,
-	7		Well developed shear dipping about 55 degrees eastward
40	ฮ		
	1		Disturbed with short chaotic shears but claystone is hard
	1	1	
	1		
	1		
4	5		contact continuous around boring
1	sc		SANDSTONE, light gray, well compacted, firm,
	7		
	-1		
		ા —	
5	0		CLAYSTONE, red brown, very silty, sandy, dense, hard, camp, erratic basal contact

55	· 1		31
,,,,,			Seepage
		Qls	
			Basal slide plane believed to be at base of claystone between 59 and 60 feet where
60	sc		Abrupt contact between claystone and sandstone. Soft plastic layer dips 60 degrees NE
		FRIARS	SANDSTONE, white, medium to fine silty, hard, laminated and crossbedded, friable
		FM	moist, very micaceous, contains clay ripups
65			
70			
			Total depth to 71' 10/19/93
			Boring is located 260 feet right of station 260 + 30 SR 125 centerline
	•		11 - SD - 125 pm 20.0 / 22.4 EA 010721
			BORING LOG 1093 - 2

1	- 1	reologic ormation	BORING 1095 - 1  30" bucket auger - bag sampling lithologic changes and downhole visual logging
Depth (	class	k attitude	Soll description and drilling remarks
(	CL	FILL	SANDY CLAYSTONE, dark brown with intermixed gray sand, damp to dry
5			
			o m
	- 1		
	2000000		LANDSLIDE DEBRIS; SANDSTONE, light gray, with numerous caliche healed steep
10	SM	·Qls	tractures, damp to dry, dense, firm
			fractures, damp to dry, defice, min
		·	
15			
20			
25			SANDY CLAYSTONE, dark reddish brown, trace pebbles, erratic contacts
	CL	Qis	CANDOTONE With caliche filled steen tractures, dense, tirm
	9M		bacel contact is bent, broken and chaotic dipping Nobe up to 50 degree
			CLAYSTONE; dark brown, red brown and dark green, fractures, contains many caliche
	CL	<u> </u>	seams and pods, dense, very firm,
30		<u> </u>	Scarrs and pode, contes,
		-	
35		<b>—</b>	
33			
		}	
40			
	881	1	SANDSTONE, light gray, well compacted, very firm, the base is wet.
			·
45			
	]		
			SANDY GRAVEL, cobbles to 4 " wet, v/ clayey, distorted contact dips south 45 degrees
50	_		SANDY GRAVEL, cobbles to 4 " Wet, V/ Clayey, distorted contact dips soon ve seguine hard contact
	CL		CLAYSTONE, red brown, dense, firm, erratic basal contact  SANDSTONE, gray, fine to medium, slightly clayey, numerous steep dipping fracture
	31	als	SANDSTONE, gray, fine to medium, slightly crayey, flumerous steep dipping with water and spall off wall along those planes

51	<del></del>		
1	- 4.0		
	- 1	Qls	
{		-10	PEBBLY CONGLOMERATE, silty, clayey, fractured, slightly offset,, very wet, seepage
-			pebbles to 2.5 ", with near vertical fractures, N80E85S
50			SANDSTONE white medium to fine silty, sl/clayey
4	<u> </u>		Numerous vertical fractures in sandstone dripping with water, saturated blocks spall
-	ŀ	Qls	cleanly along fractures. Probably the bottom and backside of landslide
-	1	-11-	
-		FRIARS	CONGLOMERATE, gray, clayey, pebbles to 1", near flat, encircles hole
5		FM	
$\dashv$	ł		
1	1		
-	CI	•	CLAYSTONE, dark gray, and and green, broken into many angular fragments like from
-	-		desiccation on a highly weathered clay surface. Broken, fragments are recemented.
0	· }		Contact is irregular. At 68, a few erratic dipping fractures planes have slickensides
-	1		probably from contemporaneous deformation. CLAYSTONE is very hard, very dense
-		<u></u>	dry, caliche and calcareous nodules common
-			
		N50W25S	
5		N52W35N	Fractures dip randomally, N50W 25S, N52W 35N, N80E 25S a few slickensides
_		N80E25S	
		#C02233	CLAYEY SILTSTONE, mostly greenish tan, abundance of sandy material and lenses
_			mottled w/white calcareous nodules, hard, dense appears undisturbed.
-			
0			
_			
_			
_	. 4	<del></del>	
5			
_			
			*.
	sc		CLAYEY SANDSTONE, white gray, bed dips toward west into hill N50W 30 S
ō			·
	CL	l	ICLA' STONE/MUDSTONE, dark green brown, dirty with silt, sand, caliche and pebbles
	sc		SANDSTONE, white gray, dense, firm, medium silty to clayey damp to dry
	CL		CLAYSTONE, red brown to dark green, bedded horizontally, very hard, dense, with
5	1		legicareous podules
_	1		CLAYSTONE, red, red brown, very hard, lenses of clayey sandstone, few random slicks
	1		
_	SC		SANDSTONE, tan ,gray, very coarse to clayey, includes some claystone clasts, hard,
	1		dense, damp to dry
C	CL	T	CLAYSTONE, tan to dark brown, appears like weathered surface of a clay bed because
_	1	1	claystone clasts, have shrunk(desiccated) broken, into countless angular tragment but
	1		have stayed in place and recemeneted. Grades into a multitude of colors with depth.
	1		Very dense, very hard, locally very sandy.
	1		
	1		
25	-1	<del> </del>	
05	ı	1	
)5			Total depth to 107' 10/18/93
)5			Boring is located 320 feet right of station 260 + 40 SR 125 centerline

BORING LOG 1093 - 1

Elev	Sald		BORING 492 - 11		
	nell line	Conlegic	18" bucket auger, bagging samples of lithologic changes		
dopth	dees		Sall description and drilling remarks		
	19300		COBBLE CONGLOMERATE, dusty yelo brown, sandy clay matrix, quartzite cobbles		
		Ola	Landslide Debris		
		Debris			
	80		CLAYEY SAND, grayish brown, loose to medium dense, v/ clayey, scattered round		
5			cobbles, coarseneing with depth and decrease in clay		
	8M				
		<del></del>	CLAYEY SAND as above uncemented or very friable sandstone fragments		
			increasing clay and scattered cobbles		
10					
			- A-Marabblas		
	CL		CLAY, orange brown, soft, very plastic sandy clay, scattered quartzite cobbles		
	СН				
	sc		SANDSTONE, light brown, clayey to pebbly, very fine to very coarse, probably blocks		
15			of sandstone intermixed with blocks of claystone and conglomerate and crushed		
	SM				
	CL		CLAYSTONE, gray olive, very plastic, soft to firm, very moist, pebbly trace cobbles,		
	сн				
20	1		A STATE OF THE STA		
			Affi I. A most be firm		
	1		CLAYSTONE, variegated, very moist, soft to very stiff but most ly firm		
	1				
	1				
25	1	Qls			
		Debris			
			To the terror work moist, loose to medium dense		
			CONGLOMERATE, black gray, very moist, loose to medium dense		
			GRAVEL, comprised of pebbes and cobbles in a clayey sand matrix		
30					
	-	ļ			
<b> </b>		<b></b> _	Thin clay layers or lenses & yelo clayey sand with pebbles grade into gray sand at base		
			Thin clay layers or lenses & yeld clayey saind with pesselse grade and grade g		
35	SP	<u> </u>	Boring location is 60 feet left of station 260+70 on SR 125 centerline		
	سب		7.040564		
L	11- 3D- 120 1.11 2010.				
	BORING LOG 492-11				

Bit A set Set Set Set Set Set Set Set Set Set S	1			BORING 592 - 19
CL TOPSOIL - CLAY, black, sitty, sandy, soft , expansive, scattered cobbles  CL TOPSOIL - CLAY, black, sitty, sandy, soft , expansive, scattered cobbles  Ch Debris Landslide Debris  SAND, dark gray, clayey to pebbly, medium dense to dense  14/18/16  10  10  10  10  10  10  10  10  10			307	Referry mad drilling 4.5 " hole sampling with 140 the weight dropped 30 " on 1.4 " sample barrel
CL TOPSOIL - CLAY, black, silty, sandy, soft , expansive, scattered cobbles  Debris Landslide Debris  SAND, dark gray, clayey to pebbly, medium dense to dense  1/18/16  10  7/17 SAND, reddish brown, silty to pebbly, w/ clayey , few cobbles , loose to medium dense  15  6/7/14 GRAVELLY SAND, reddish brown, poorly sorted, very silty, very clayey intermixed pebbles and cobbles, medium dense  20  22/5/5/5/5 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular ,varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  25  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qle  Debris Landslide Debris  30  11/3/9/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  CL		i i		Soil description and drilling remarks
S SW SAND, dark gray, clayey to pebbly, medium dense to dense  147876  147876  147876  147876  15 SAND, reddish brown,silty to pebbly, w/ clayey, few cobbles, loose to medium dense  15 SAND, reddish brown,silty to pebbly, w/ clayey, few cobbles, loose to medium dense  15 SAND, reddish brown, poorly sorted, very silty, very clayey intermixed pebbles and cobbles, medium dense  20 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  25 CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  30 Debris Landslide Debris  30 SANDY CONGLOMERATE, very cloired pebbles fragments in coarse sand in clay matrix  313/34/15  32 CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  35 CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense				TOPSOIL - CLAY, black, silty, sandy, soft, expansive, scattered cobbles
SAND, dark gray, clayey to pebbly, medium dense to dense  10 10 10 10 10 10 10 10 10 10 10 10 10				
10 10 10 10 10 10 10 10 10 10 10 10 10 1			Debris	Landslide Debris
10 10 10 10 10 10 10 10 10 10 10 10 10 1				and the second s
10 17/17 SAND, reddish brown, silty to pebbly, v/ clayey, few cobbles, loose to medium dense 15 16/7/14 GRAVELLY SAND, reddish brown, poorly sorted, very silty, very clayey intermixed pebbles and cobbles, medium dense 20 21 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular , varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense 25 25 26 27 28 28 28/21/36 CLAYSTONE, in bottom 6° is yellow, hard to v/ stiff, pliable when wet	5	SW		SAND, dark gray, clayey to peoply, infedium dense to delbe
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand , dense to v/dense  25 CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris  Landslide Debris  30  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/236 CLAYSTONE, in bottom 6* is yellow, hard to v/ stiff , pliable when wet			14/18/16	
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand , dense to v/dense  25 CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris  Landslide Debris  30  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/236 CLAYSTONE, in bottom 6* is yellow, hard to v/ stiff , pliable when wet				
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand , dense to v/dense  25 CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris  Landslide Debris  30  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/236 CLAYSTONE, in bottom 6* is yellow, hard to v/ stiff , pliable when wet				
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand , dense to v/dense  25 CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris  Landslide Debris  30  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/236 CLAYSTONE, in bottom 6* is yellow, hard to v/ stiff , pliable when wet	10			
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris Landslide Debris  30 13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet			חחר.	SAND, reddish brown, silty to pebbly, v/ clayey, few cobbles, loose to medium dense
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris Landslide Debris  30 13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet				
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris Landslide Debris  30 13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet				
20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris Landslide Debris  30 13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet				
pebbles and cobbles, medium dense  20 25/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  25 25 26 27 28 29 29 20 20 20 21 21/37 21/20 20 20 20 21 21/37 21/20 20 20 20 20 20 20 20 20 20 20 20 20 2	15			CDAVELLY SAND, roddish brown, poorly sorted, very sitty, very clayey intermixed
20 225/36/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular ,varicolored cobble fragments, w/ lenses clayey sand , dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qts  Debris Landslide Debris  30 13/39/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  25 28/22/36 CLAYSTONE, in bottom 6° is yellow, hard to v/ stiff , pliable when wet			`6/7/14	GHAVELLY SAND, reduist blown, poorly sorted, very sarry
2536/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  Qts Debris Landslide Debris  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  SC CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet			<u> </u>	pepples and cobbles, mediam dones
2536/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  Qts Debris Landslide Debris  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  SC CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet		*		
2536/51 SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks mostly brown, poorly sorted many angular varicolored cobble fragments, w/ lenses clayey sand, dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  Qts Debris Landslide Debris  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  SC CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet	20	\$2000ES		
mostly brown, poorly sorted many angular , varicolored coopie fragments, whenses clayey sand , dense to v/dense  CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix  13/21/20  Qls  Debrts Landslide Debris  30  13/30/15  SC  CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet	-		25/36/51	SANDY CONGLOMERATE, (probably intermixed sandstone and conglomerate blocks
CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix    13/21/20				mostly brown, poorly sorted many angular , varicolored cobble fragments, while is es
CONGLOMERATE, vari colored pebbles fragments in coarse sand in clay matrix    13/21/20				clayey sand, dense to v/dense
Ots Debris Landslide Debris  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet				
Ots Debris Landslide Debris  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet	25			CONGLOMERATE, vari colored peobles fragments in coarse sand in only manual
Debris Landslide Debris  13/30/15  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet			13/21/20	
Debris Landslide Debris  13/30/15  13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet	-		~	
30 13/30/15  SC CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  35 28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet	-			Landslide Debris
35 CLAYEY SANDSTONE, gray, very fine with variegated pebble fragments, dense  28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff , pliable when wet	30			
35  CLAYEY SANDSTONE, gray, very fine with variegated peoble fragments, dense  28/22/36 CLAYSTONE, in bottom 6* is yellow, hard to v/ stiff , pliable when wet			13/30/15	
35 28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet				ii the second askels frogments dance
28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet		sc	L	CLAYEY SANDSTONE, gray, very fine with variegated people fragments, dense
28/22/36 CLAYSTONE, in bottom 6" is yellow, hard to v/ stiff, pliable when wet		]		
CL	35	4		CLAYSTONE in bottom 6" is vellow hard to v/ stiff pliable when wet
		<b>-</b>	`}	CLATSTONE, III DOROITO B YEARN, HELD TO TO CALL T PIECE
		CL	1	Drilled to 36.5 feet 5/20/92
Boring location is 49 feet left of station 260+90 on SR 125 centerline				
11- SD- 125 PM 20.0 / 22.4 EA 010721	-			
BORING LOG 592-19				

	,		
Elev	244		BORING 492 -12
544'	<b>-</b>	Coologic	18" bucket auger - bagging samples of lithologic changes
dopth			nell december and drilling remarks
	CL	Topsoil	CLAY, black, loose very moist,, plastic, slightly, sandy, slightly organic
			Landslide debris SANDY SILT & SILTY SAND, tan, loose to medium dense, very fine sand grains, moist
5	靈	Qbs	SANDY SILT & SILTY SAND, tan, loose to medium derse, very medium
		Debris	
	W.		Too rocky to drive sample barrel.
		<b></b>	
10	<del></del>	<b> </b>	CLAY, SAND, & cobbles heavy clay matrix, bray brown, moist
	CL	<u> </u>	
	sc		SILTY CLAYEY SAND, with abundance of pebbles and cobbles, red brown, moist
	- <b>∤</b> *℃		SILTY ODATE TO OTTO
15	-		
15	l sc		CLAYEY SAND AND GRAVEL, , very clayey, red brown,
	200000		CLAYEY GRAVEL & SAND, very clayey, gray to brown gray, moist, medium dense
	-		
20	5		Toe rocky to drive sample barrel
			Take bag of disturbed sample from 17 to 20 feet and 22 to 25 feet
			Very rocky - 4" size is common
2	5		
			GRAVELLY SAND, light gray, , medium dense to dense, moist, becomes very rocky
	_ sv		GHAVELLY SAND, light gray, , medium dense to dense, many
	_	<b></b>	with depth, locally very clayey.
3			
<b> </b>	_  SI	<b>*</b>	Landslide debris
<u> </u>	-	Qis Debri	
-	-[	Dept	
-3	5	-	Total depth to 35 feet 4/17/92
۳		201	Boring location is 90 feet left of station 263+40 on SR 125 centerline
			11- SD- 125 PM 20.0 / 22.4 EA 010721
-			BORING LOG 492-12

Elev. 443*	para sea	اسم	Contegés	BORING 493 - 1
			30" bucket suger - bag sampling lithologic changes and downhole visual logging	
epth.	class	A pattendo	Soil description and drilling remarks	
	SM	Qls	SILTY SAND, tan to white, moist, poorly sorted, moderately firm to very friable	
5				
10				
			Latin Land mad lance	
	(Y:5)	Qls	CONGLOMERATE, gray with sand matrix, gray lenticular clayey gravel moist, mod loose	
		debris	to mod dense most pebbles range from 1/2 to 1 inch in sizebut also contains cobbles	
			to 10 "	
15				
			Section See Training Value dance little to no sit on clay contains	
	SM	Qls	SANDSTONE, gray, fine to very fine, moist, very dense, little to no silt, no clay, contains	
			a one inch layer of fine gravel. Grades down into silty sand that is gray and very dense	
20	]		C	
	SM		SILTY SAND, gray, fine to medium, very dense but poorly cemented	
	1			
			Contact dips downhill 4 degrees  CONGLOMERATE, variegated pebbles, clay matrix, cobbles to 10°, moderately dense	
		Qts	Shear Zone - CLAYSTONE, gray, gouged with many slicks, short shear planes	
25	СН	N30W18N	The largest shear in zone trends N50W33NE. A slide plane within the major slide	
		N50W331	The largest shear in Zone tiends Noovvoorte. A side plane trainit are theje.	
		110710041	SILTY CLAYSTONE, olive, mottled white w/caliche pods and veins, also contains black	
		N5W24N	organic rich spots , dense , few shears - one caliche vein @ 27trends N5W 24NE	
20			Grades sandy with depth and less caliche	
30	(4)(0)(0)		Grades sailty with depart and less canons	
	- SM	Qla	SANDSTONE, white gray, silty, moist, fine/ medium, v/ clayey, diseminated caliche, friable	
	-		with interbedded thin clay layers	
	-	NOWAE	At 34' very moist , soft , thin clay layer strikes N30W35NE	
35	<del>.</del>	11301133	(At 64 foll) most folk families	
	4	120W25	CLAY layer between 35.5 & 36.5 heavily sheared strikes N30W35NE, soft, moist	
		1301133	ODAT layer boursess some	
	SM			
	- <del> </del>	Ols	Sheared CLAYSTONE, red, soft, pliable, plastic, brecciated & gouged with 2" green cap	
40	СН	debris	Several gouge zones 1/8 to 1/4 inch thick, contain many stacked slickensides, wet, soft,	
	4	Genta	near flat gouge zones - @ 42' heavily sheared red clay dips randomly, heavy seepage	
	-	<del> </del>	Penetrometer registers 1 to 1.25 TSF	
	量		T CACH GARACTE	
			SILTY CLAYST / CLAYEY SILTST, dark green to green gray and black, dry, firm, few	
45	: 🗐		random fractures, grades very silty with depth and very well consolidated and hard	
	SM	1	SANDSTONE, light green, dense, coarse to very coarse, friable to well consolidated, dry	
50				
	1			
	СН	Qls	CLAYSTONE, red, highly sheared, soft wet, brecciated with large slickenside planes	
	┪҇¨	1/1/1	SPT@52 - 1/1/1 Blow counts for six inch penetration using 2300 lbs drop for 30 "	

	P/2/3	SPT @ 53.5' push / 2 / 3 Blow counts for six inch penetration using 2300 lbs drop for 30"
55	N35W38E	ALES 5' charging dine downsing N35W38NE & hand penetrometer registers 1 15P
		OUT OF A VOTONE light hours motted organ moist locally well massively stickled
	<b> </b>	but not as bad as above, many large shears dipping randomly, very stiff between shears
B0	12/6/11	SPT @ 60' - 3/6/11 Blow counts for six inch penetration using 1300 lbs drop for 30"
0U	3/0/11	SPI (G. ev )/e/// Device-
- =	<b></b>	
_	<b>]</b>	Hand penetrometer test @ 64' measured 1 tsf
	<b></b>	Shear Zone from 63 to 65 ft - CLAYSTONE, green brown, brecciated with shears, soft, wet
СН	Qls	Shear Zone from 53 to 53 it - CEATS FORE years well polished - N55W 35 NE
85	plane?	shears dip randomly except for one large well grooved, well polished - N55W 35 NE
834	FRIARS	Entire Zone is possibly the basal slide plane but direction is indistinct.
	FM	to describe the second second frights
		SANDSTONE, green gray, moderately dense to dense, wet , poorly sorted, friable
70		
CL		CLAYSTONE, red, very hard
75		
	1	
		Total depth to 76' 4/14/93
		Boring is located 510 feet right of station 266 + 70 on SR 125 centerline
		11 - SD - 125 pm 20.0 / 22.4 EA 010721
		BORING LOG 493 - 1

Elm.	اسم	Goologie	BORING 2
441'		formation	30" bucket auger - bag sampling lithologic and downhole visual logging
Depart	class	A settindo	Soil description and drilling remarks
	ME	Topsoil	SILTY CLAY, black, very expansive, sandy
	SC	Qls	CLAYEY SAND, white gray, fine, very densely compacted but friable
		debris	Hand penetrometer test registered 3 tsf
5			
			I blood developed topcoll
	14		SANDY, GRAVELLY CLAY, dark brown, probably an old poorly developed topsoil
			Hand penetrometer test registered 1 tsf
	CL		CLAY, gray, slightly moist, very stiff
10	I		Hand penetrometer test registers from 3.0 to 3.5 tsf
			SANDY CLAY, red brown , pebbly
	MI.		CLAYEY SILTY CLAY, gray brown with abundance of caliche, very soft and wet
			locally but very stiff overall
	7.8%		CONGLOMERATE, gray with heavy clay matrix, very sandy, dense firm
15			
			The ALCONAL OF IT
		N20W101	Bottom contact with claystone trends N20W10NE
	CL		CLAYSTONE, gray heavily impregated w/ caliche. punky but firm,
	1	Qis	Hand penetrometer test registered 3.5 tsf
20	1	debris	and the state of t
			CLAYSTONE as above but contains much more caliche SANDSTONE, green, coarse, w/clay matrix, dense, with tight fractures & slight seepage
	sc		SANDS TONE, green, coarse, wichay matrix, dense, with agin madared a ongin occupa-
			SILTY CLAYSTONE & CLAYEY SILTSTONE, dark green gray, dense, heavily fractured
	CL		very moist, crushes easily has steep open fractures seeping water, large caliche patches
25		<u></u>	CLAYEY SILTSTONE, green gray, very stiff, fractures contain no slickensides
		<b></b>	CLATET SILTSTORE, groon gray, very same meetings
-			
-	CL	<del> </del>	Brecciated SILTY CLAYSTONE, red brown, heavy seepage from the fractures,
30			Shear planes dio randomly, many long prominent shears & fractures become shorter
<del>- •</del>		<b></b>	and less impressive below 30' where slickensides are fewer or absent.
-			CLAYEY SILTSTONE & SILTY CLAYSTONE, intermixed red brown, moderately stiff, dry
-		N45W22	Long polished shear plane at 33' trends N45W22NE
<b> </b>	ı		
35	讍	Qls	
		N.1.4.	
	CL	N40W40	N CLAYSTONE, red brown, brecciated zone between 36 and 38 feet. Many shears and slicks
	]	N50W38	N Zone dips downslope - general trend is N50W38NE and longest snear trends N40V40NVV
			SILTY CLAYSTONE, It green gray, moist, many shears. Shear zone dips 147044 Tolke
40		N70W18	N Stable but dencely compact
	_ sx		SANDSTONE, gray green, medium to v/coarse, friable, but densely compact
	_[		
<b></b>	_	<u> </u>	Contact in share, it dies into the slope at N70F19NW
4:	<u> </u>	<b>!</b>	Contact is sharp, it dips into the slope at N70E19NW  CLAYSTONE,maroon, heavily sheared small, short chips & blocks that dip randomly
	$-1^{c_{\rm I}}$		color grades down from dark red and dark green near top into the maroon, dry,
	-	Qia	The state of the state of the lower stayes cortion is netween 40 800 DU II.
	4	debris	This is probably the basal disturbed zone in the landslide.
50	4	}	
		EW55N	CLAYSTONE, red & green ,highly sheared with v/steep shearing planes @ 50 ' EW55N
-			SILTY CLAYSTONE, gray, many slicks dipping randomly.
-	-	Frians	
L			

		Fm	Many hard calcareous nodules between 50' and 54' - grades gradually into firmer rock
55			
		·	Below 54' shears are small, fewer, and claystone is more competent being hard & firmer
			grades into dark red to dark green CLAYEY SILTSTONE v/ hard, locally sandy to clayey
			few fractures, no shears.
············			
60			
	SX		SANDSTONE, light green, fine to coarse, moist, well cemented, densely compacted,
			massive, no fractures
			CLAYEY SILTSTONE, dark red brown & dark gray green, very clayey, hard, no fractures
65			
	SM		SANDSTONE, gray to green gray, very moist to almost wet, well sorted, well compacted
	<b>l</b> iiil		very poorly cemented, abundance of coarse grains
70	╏┈┟		
	0000000		Total depth to 70° 4/14/93
			Boring is located 490 feet right of station 269 + 70 on SR 125 centerline
			11 - SD - 125 pm 20.0 / 22.4 EA 010721
BORING LOG 493 - 2			
			DOMING EOG 430 - Z